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10/576,536	04/19/2006	Juha Karttunen	879A.0064.U1(US)	3744

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EXAMINER	
FANG, PAKEE	

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,536	KARTTUNEN, JUHA	
	Examiner	Art Unit	
	PAKEE FANG	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on January 29, 2009 has been entered and considered by examiner. Claims 1-19 are presented for examination.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the abstract contains the word "means".

Claim Objections

4. Claims 1 – 17 are objected to because of the following informalities:

Claims 2 & 10 are objected, because *"the" display driver* should be *"a"*.

Claim 2 – 8 are objected, because *"a" controller* and *"a" light driver* should be *"the"*.

Claim 9 is objected, because *"the" information indicating light* should be *"a"*.

Claims depended on the objected base claim are also objected.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains new subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "Data storage medium" is not described in the specification, The examiner also takes into account of the memory described on Page 6 line 12 of the specification & the controller on Page 11 line 33 of the specification do not match the functionality of the claim.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 18 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The preamble recites "data storage medium with software". The claimed "data storage medium" is not clearly defined in the specification. . Examiner interprets the claimed "software" without "data storage medium" because USC 112 1St. problem above. The claimed "software" is not a "process" under 35 U.S.C. 101 because it is not a series of steps. The claimed "software" has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine. The claimed "software" is not matter, but a form of "data structure" or "computer language instructions", and therefore is not a composition of matter. And lastly, because a "programming code" lacks physical substance and is not a residual class of product, a claimed signal does not fall within the definitions of manufacture. Therefore, a claimed signal does not constitute patentable subject matter as set forth in 35 U.S.C. 101. As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

In view of the below sited MPEP section the claims are non-statutory because they are functional descriptive material per se.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1-13, 17 - 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton (US Pub. 20020118177 A1) in view of Ruttenberg (US Pub. 20080048979 A1).

In regard to claim 1, Newton discloses (Figs. 1- 5) a portable apparatus (100) [0026] & [0036] comprising:

a display unit (150) with information-indicating light units (156);

a controller (102) for defining control commands on the basis of a display unit application and an instantaneous view shown in the display unit [0030 -0032]; and

a light driver (106 or 116) for controlling the information-indicating light units based on the control commands [0015, 0023, & 0027], but, Newton didn't explicitly teach such that the information-indicating light units are arranged to indicate information concerning ***a display unit application object*** located outside a current view of the display unit. However, Ruttenberg discloses (Figs. 3-4) an information-indicating light unit (90) are arranged to indicate information concerning a display unit application object (46) located outside a current view of the display unit [0053-0055]; Since, Newton and Ruttenberg inventions are both analogous arts addressing a portable display system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention was made to combine the light units around peripheral of the display of Newton with the application object located outside a current view of the display unit of

Ruttenberg to project user input graphics, and enabling communication between people at two or more sides by presenting (displaying) at one side the graphic information input at another side (Ruttenberg, [0008]).

In regard to claim 9, Newton (Figs. 1-5) discloses a method comprising:

defining in a controller (102) of a portable device (100) a control command on the basis of a display unit application (119 or 502) [0030 & 0051] and an instantaneous view (Fig. 5, 152) shown in the display unit in order to control the information-indicating light units (156) [0029-0031]; and

controlling information-indicating light units, which are placed in the surroundings of the display unit, through a light driver (106 or 116) [0015 & 0027-0028] based on the control command defined in the controller; but, Newton didn't explicitly teach such that information concerning ***a display unit application object*** located outside the current view of the display unit is indicated by the information-indicating light units. However, Ruttenberg discloses (Figs. 3-4) an information-indicating light unit (90) are arranged to indicate information concerning a display unit application object (46) located outside a current view of the display unit [0053-0055]; Since, Newton and Ruttenberg inventions are both analogous arts addressing a portable display system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention was made to combine the light units around peripheral of the display of Newton with the application object located outside a current view of the display unit of Ruttenberg to project user input graphics, and enabling communication between people at two or more sides by

presenting (displaying) at one side the graphic information input at another side (Ruttenberg, [0008]).

In regard to claim 18, Newton discloses (Figs. 1, 5 & 6) a data storage medium (104/111) encoded with software (Computer readable instructions) readable by a data processing device (102) for performing actions for improving information display execution capability of a display unit of a portable device [0029 -0031], the actions comprising:

defining a controllable light unit group composed of light units arranged in the surroundings of the display unit (light groups of the emitters are surrounded the display unit) on the basis of a display application (119 or 502) [0030 & 0051] and an instantaneous view (152) shown in the display unit;

generating on the basis of the display unit application of the display unit (Fig. 5 shows the display unit application is generated), certain control commands in order to control the a defined light unit group according to the display unit application [0029], and the instantaneous view of the display unit (152) [0030];

transmitting the generated control commands to a light driver (106 or 116) in order to control the defined light unit group for giving information about the display unit application [0015 & 0027-0028], but, Newton didn't explicitly teach such that information concerning ***a display unit application object*** located outside the current view of the display unit is indicated by the information-indicating light units. However, Ruttenberg discloses (Figs. 3-4) an information-indicating light unit (90) are arranged to indicate

information concerning a display unit application object (46) located outside a current view of the display unit [0053-0055]; Since, Newton and Ruttenberg inventions are both analogous arts addressing a portable display system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention was made to combine the generating and transmitting commands for the light units around peripheral of the display of Newton with the application object located outside a current view of the display unit of Ruttenberg to project user input graphics, and enabling communication between people at two or more sides by presenting (displaying) at one side the graphic information input at another side (Ruttenberg, [0008]).

In regard to claim 19, Newton discloses (Figs. 1, 5, & 6) an apparatus (100) for improving information display capability of a display unit (150) of a portable device [0026 & 0036], the apparatus comprising:

means for defining a controllable light unit group (156) on the basis of the information of the a display unit application (119 or 502) shown in the display [0027-0030] and;

means for generating certain control commands on the basis of the information of the display application of the display unit [0029] and to control a given light unit group for giving information about the display unit application [0015, 0029-0030]; but, Newton didn't explicitly teach such that the information-indicating light units are arranged to indicate information concerning ***a display unit application object*** located outside a current view of the display unit. However, Ruttenberg discloses (Figs. 3-4) an

information-indicating light unit (90) are arranged to indicate information concerning a display unit application object (46) located outside a current view of the display unit [0053-0055]; Since, Newton and Ruttenberg inventions are both analogous arts addressing a portable display system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention was made to combine the light units around peripheral of the display of Newton with the application object located outside a current view of the display unit of Ruttenberg to project user input graphics, and enabling communication between people at two or more sides by presenting (displaying) at one side the graphic information input at another side (Ruttenberg, [0008]).

In regard to claim 2, Newton discloses wherein said portable apparatus also includes a controller (102) for generating control commands for the light units on the basis of the information transmitted by the display driver (114), to the light driver (116) [0027-0028] (a processor for generating control commands for the emitters on the information send by a display screen interface to a input/output interface for the light units).

In regard to claim 3, Newton discloses wherein in the surroundings of the display unit, there are at least two light units (156) or light unit groups formed of single light units, placed so that the light units are arranged at an angle of 90 degrees with respect to each other. (The emitters are place at an angle of 90 degrees with respect to each

other.)

In regard to claim 4, Newton discloses (Fig. 1) wherein the light units are placed around the display unit.

In regard to claim 5, Newton discloses which is provided with a light driver (116) configured to control the light units or the light unit groups formed of single light units [0028 -0031].

In regard to claim 6, Newton discloses which is provided with a controller (102) and a light driver (116) configured to control the light units according to the application shown in the display unit [0010, 0025-0031].

In regard to claim 7, Newton discloses (Figs. 1 & 5) which is provided with a controller configured to define the control commands of the light units [0025-0031] to synchronize the light units with respect to the view [0015, & 0066-0067].

In regard to claim 8, Newton discloses which is provided with a light driver for configured to control the functions and properties of the light units according to the control commands generated by the controller [0025-0031].

In regard to claim 10, Newton discloses characterized wherein in the controller,

there are generated functional commands to the light driver in order to control the light units on the basis of the information of the view in the display unit, transmitted by the display driver (114) [0027-0028] and the display unit application [0030] (a processor for generating control commands for the emitters on the information send by a display screen interface and the application program stored in the memory base on the display to a Input/Output port interface).

In regard to claim 11, Newton (Figs. 1 & 6) discloses wherein the light units are arranged in the surroundings of the display unit (The emitter are arranged in the surrounding of the display unit.), at an angle of 90 degrees with respect to each other, (The emitters are place at an angle of 90 degrees with respect to each other.) in order to indicate a direction (107, the emitters are indicating a light beam in a particular direction), with respect to the view shown in the display unit, by the light units.

In regard to claim 12, Newton discloses that wherein the light units are arranged in light unit groups (emitters are in groups), which are separately controlled by the light driver [0015].

In regard to claim 13, Newton discloses that wherein in the display unit, there are shown objects under observation, (Fig. 5 shown objects under observation) and simultaneously the light units controlled by the light driver are used for generating

information in the view of the display [0031-0032] (emitters control by the command interface are used to help generating information in view of the display).

In regard to claim 17, Newton discloses (Fig. 1, 5 & 6) wherein in the display application (119 or 502) shown in the view [0030 & 0051], with respect to the view is indicated by activating the controllable light unit group (156) by the light driver (116) in a way defined in the display unit application [0028-0030], but Newton didn't explicitly teach the direction of a given searched display unit application object that is located outside the view of the display. However, Ruttenberg discloses (Figs. 3-4) an information-indicating light unit (90) are arranged to indicate information concerning a display unit application object (46) located outside a current view of the display unit [0053-0055]. See the motivation to combine from the above claims.

11. Claims 14 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton (US Pub. 20020118177 A1) in view of Ruttenberg (US Pub. 20080048979 A1) in further view of Sindle (US 4015232).

In regard to claim 14, Newton discloses an image or view on the display is indicated by generating in the light command interface, and the emitter units can respond to an approaching outside object [0027 – 0036]; Ruttenberg discloses the display unit application object is in the same direction as the light emitter on Fig. 4; but, both fails to disclose approaching an object outside the emitters that are located in the same direction with respect to the view as the display unit application object in question.

However, Sindle discloses a display system for a vehicle comprises peripheral light emitters "A plurality of warning lights 212-223 are disposed along the periphery of the simulated vehicle for providing an indication by lighting of the appropriate portion of the vehicle which is in danger of being too close to an object." (Col. 3 line 44 – Col. 4 line 20) which shows when the system approaches an object in question the plurality of light located in the same direction with respect to the view will unquestionably indicated the object. Since, Newton, Ruttenberg, and Sindle inventions are the analogous art addressing a peripheral sensing system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine the emitters around the display of Newton with application object in the same direction of the emitter of Ruttenberg with the directional warning light of Sindle to enhance the directional detection as a whole to give the user a better insight of foreseen obstacle or targeted area.

In regard to claim 16, Newton discloses computer executable instructions or an application for displaying an image or view on the display through the command interface, and the controllable emitter groups can respond to an object by emitting light. [0027 – 0036]; Ruttenberg discloses display unit application object; but, Newton & Ruttenberg didn't disclose a threatening factor associated with the proceeding direction of the object by the emitter units using another wavelength. However, Sindle discloses "A plurality of warning lights 212-223 are disposed along the periphery of the simulated vehicle for providing an indication by lighting of the appropriate portion of the vehicle

which is in danger of being too close to an object." & warning lights can emit a different wavelength for the appropriate direction "For example, the front lights could be red, the rear lights could be yellow, the right side could be blue, and the left side could be green." (Col. 3 line 44 – Col. 4 line 20) which shows a plurality of light located in the same direction with respect to the view will unquestionably indicated the target or the object in question with a warning factor for a potential threat by using various of wavelength. See motivation to combine from the above claim.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Newton (US Pub. 20020118177 A1) in view of Ruttenberg (US Pub. 20080048979 A1) in further view of Sindle (US 4015232) & Marcus (US 6124647).

In regard to claim 15, Newton discloses (Figs. 1, 5 & 6) wherein the light driver is used for controlling a controllable light unit group [0027 -0028], located in a given direction with respect to the view of the display unit (Fig. 1 shows the light driver is located in a predetermined direction with respect to the view of the display unit); Ruttenberg discloses the display unit application object is in the same direction as the light emitter on Fig. 4; Sindle discloses a a display system for a vehicle comprises peripheral light emitters; but all three reference didn't explicitly teach the intensity of the light units is increased as the display unit application object approaches the display unit. However, Marcus discloses (Fig. 2) when an application object approaches to a predetermined distance, the display emission will increase in intensity to get the user's

attention. (Col. 5 lines 29 – 54) which has a functional equivalence of this limitation.

Since, Newton, Ruttenberg, Sindle and Marcus are analogous art addressing a light emission system. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine (See motivation to combine Newton, Ruttenberg, & Sindle) with the varying intensity of light to detect the change of the distance for an application object of Marcus, because it will allow the user to be more aware of surroundings, thus accidents maybe substantially reduced.

Response to Arguments

Applicant's arguments with respect to claims 1 - 19 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the references of Ruttenberg, & Marcus have been used for new ground of rejections.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAKEE FANG whose telephone number is (571)270-7219. The examiner can normally be reached on Mon-Friday 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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